



# Prescribing and Managing Anti-Obesity Drugs

## Session #4

- Presenter: Aspen Viets, NP
- Original slides created by Dr. Meghan Poddar with additional edits/changes by Aspen Viets
- February 23, 2022

# FACULTY/PRESENTER DISCLOSURE

**Presenter: Aspen Viets**

**Relationships with commercial interests: none**

Honorariums: none

Consulting Fees: none

**Other: Employed by The Ottawa Hospital, Bariatric Centre of Excellence**

# Objectives

At the end of this session the learners will be able to:

- Describe pharmacological options and their indications for treating obesity.
- Recommend pharmacological options for therapy if clinically indicated for patients living with obesity.

# 3 Pillars of Obesity Management

**3 Advise** On obesity risks. Discuss the health benefits of obesity management.

## Medical Nutrition Therapy (MNT)

MNT is used in managing chronic diseases and focuses on nutrition assessment, diagnostics, therapy and counselling. MNT should:

- be personalized and meet individual values, preferences and treatment goals to promote long term adherence
- be administered by a registered dietitian to improve weight-related and health outcomes

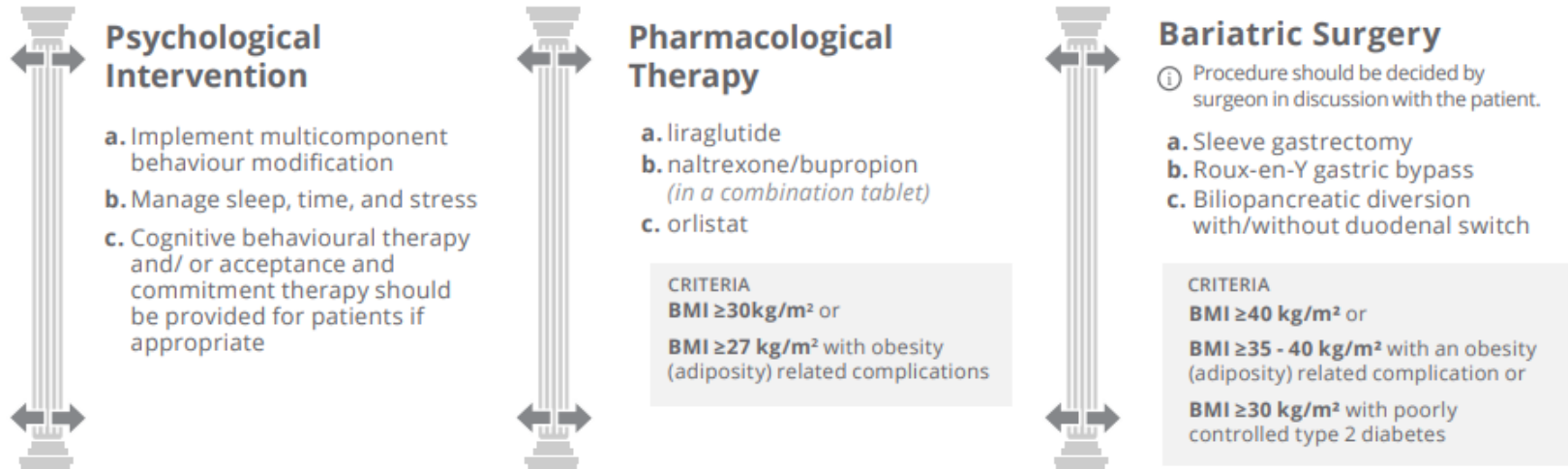
## Physical Activity

30-60 mins of aerobic activity on most days of the week, at moderate to vigorous intensity, can result in:

- small amount of weight and fat loss
- improvements in cardiometabolic parameters
- weight maintenance after weight loss

ⓘ Remember nutrition and physical activity recommendations are important for all Canadians regardless of body size or composition.

## The Three Pillars of Obesity Management that Support Nutrition and Activity



Treating the root causes of obesity is the foundation of obesity management - refer to the 4M framework - mechanical, metabolic, mental and social milieu

# 2020 CLINICAL PRACTICE GUIDELINES: PHARMACOTHERAPY

Recommendations		Category of evidence and strength of recommendation†
<b>Pharmacotherapy in obesity management</b>		
35	Pharmacotherapy for weight loss can be used for persons with BMI $\geq 30$ kg/m <sup>2</sup> or BMI $\geq 27$ kg/m <sup>2</sup> with adiposity-related complications, in conjunction with medical nutrition therapy, physical activity and psychological interventions (liraglutide 3.0 mg, naltrexone-bupropion combination, orlistat).	Level 2a, grade B
36	Pharmacotherapy may be used to maintain weight loss that has been achieved by health behaviour changes, and to prevent weight regain (liraglutide 3.0 mg or orlistat).	Level 2a, grade B
37	For people living with type 2 diabetes and a BMI $\geq 27$ kg/m <sup>2</sup> , pharmacotherapy can be used in conjunction with health behaviour changes for weight loss and improvement in glycemic control: liraglutide 3.0 mg (level 1a, grade A), naltrexone-bupropion combination (level 2a, grade B), orlistat (level 2a, grade B).	See recommendation
38	We recommend pharmacotherapy in conjunction with health behaviour changes for people living with prediabetes and overweight or obesity (BMI $\geq 27$ kg/m <sup>2</sup> ) to delay or prevent type 2 diabetes (liraglutide 3.0 mg; orlistat).	Level 2a, grade B
39	We do not suggest the use of prescription or over-the-counter medications other than those approved for weight management.	Level 4, grade D (consensus)
40	For people living with overweight or obesity who require pharmacotherapy for other health conditions, we suggest choosing drugs that are not associated with weight gain.	Level 4, grade D (consensus)

# Pharmacotherapy Available in Canada

	Orlistat	Liraglutide	Naltrexone/Bupropion
Mode of administration	Oral	Subcutaneous	Oral
Dose/frequency	120 mg TID	3.0 mg daily	16/180 mg BID
Effect on % weight loss at 1 year, placebo subtracted	-2.9% <sup>5</sup>	-5.4% <sup>1</sup>	-4.8% <sup>4</sup>
Effect on weight over longer term, placebo subtracted	-2.8kg at 4 years <sup>10</sup>	-4.2% at 3 years <sup>2</sup>	Not studied
% of patients achieving ≥ 5% weight loss at 1 year	54% (vs 33% in placebo) <sup>5</sup>	63.2% (vs 27.1% in placebo) <sup>1</sup>	48% (vs 16% in placebo) <sup>4</sup>
% of patients achieving ≥ 10% weight loss at 1 year	26% (vs 14% in placebo) <sup>5</sup>	33.1% (vs 10.6% in placebo) <sup>1</sup>	25% (vs 7% in placebo) <sup>4</sup>
Effect on maintenance of previous weight loss	2.4kg less weight regain vs placebo over 3 years <sup>5</sup>	-6.0% additional placebo-subtracted weight loss at 1 year <sup>3</sup>	Not studied

Pedersen SD, Manjoo P, Wharton S. Canadian Adult Obesity Clinical Practice Guidelines: Pharmacotherapy in Obesity Management. Published online August 4, 2020. Accessed August 4, 2020. <https://obesitycanada.ca/guidelines/pharmacotherapy>

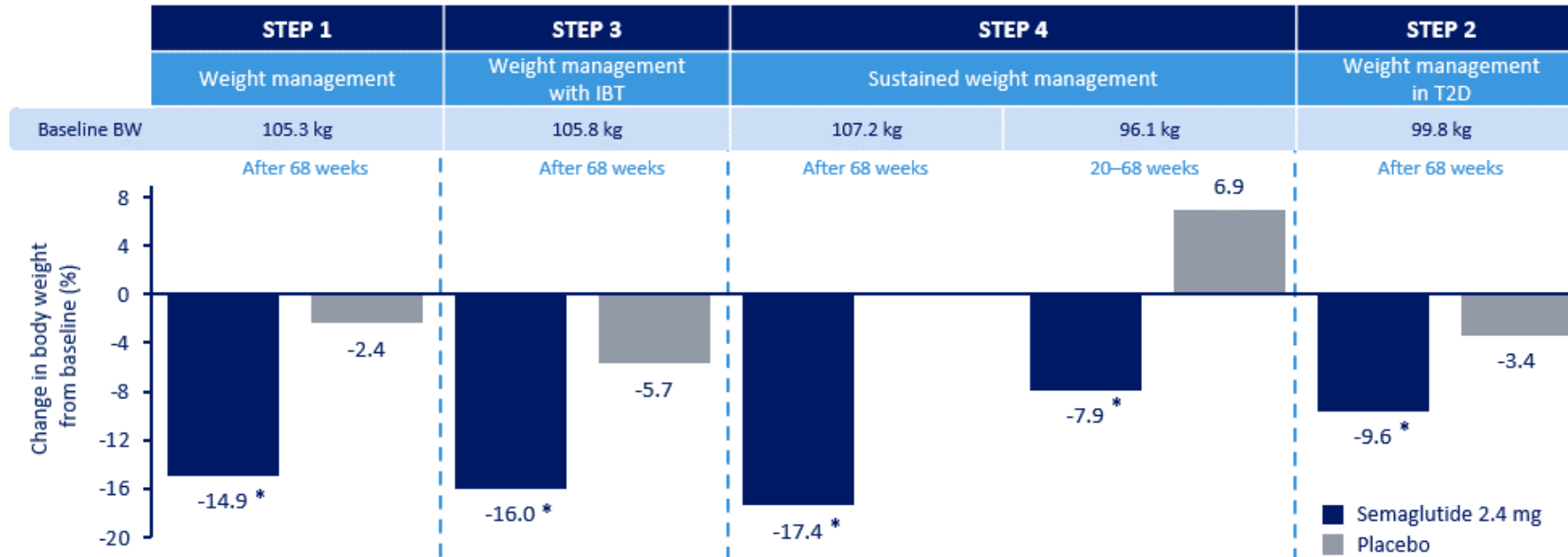
# Newly Approved Agent

Semaglutide 2.4 mg SC weekly (marketed as Wegovy)  
Approved by Health Canada in November 2021  
Comparable if not slightly superior results to liraglutide  
Not yet available at pharmacies

# Semaglutide 2.4 mg

## Summary: weight loss across STEP 1-4

Effects of semaglutide 2.4 mg once-weekly in patients with obesity



**Treatment policy estimand:** Evaluates the treatment effect regardless of trial product discontinuation and use of rescue medication

BW, body weight; IBT, intensive behavioural therapy.  
<https://ml-eu.globenewswire.com/Resource/Download/2281601f-7c58-41db-b587-e7bb8cecc7e8>. <https://ml-eu.globenewswire.com/Resource/Download/d8a1f4e0-82a7-4d5f-bb70-f5b96a9ef77d>. <https://ml-eu.globenewswire.com/Resource/Download/4951d1a2-3bd1-47ea-840a-a1234109c018> (accessed November 2020)



# Orlistat (Xenical)



**Mechanism of actions:** Blocks absorption of dietary fat

**Dose:** 120mg TID with meals containing

In a systematic review/meta-analysis it was shown that 54% achieved  $\geq 5\%$  reduction in weight and 26% achieved  $\geq 10\%$

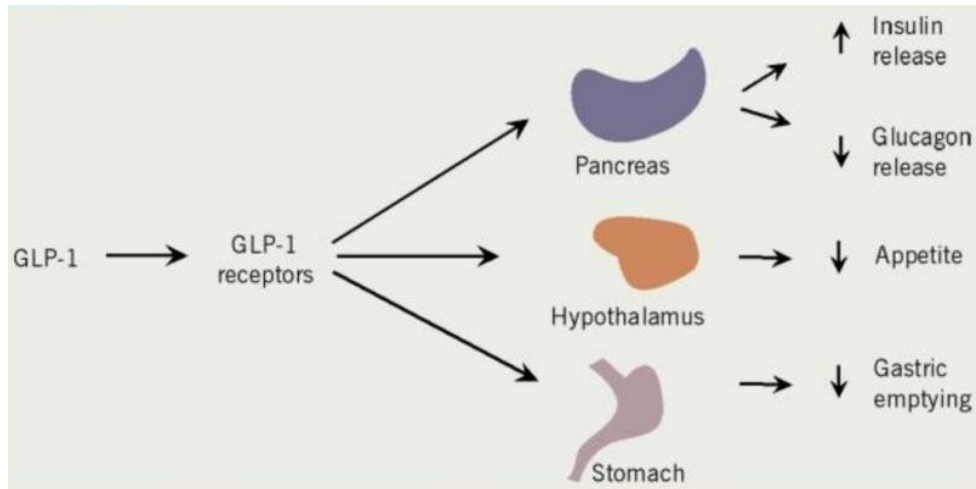
**SE:** diarrhea/oily spotting, bowel urgency, cholelithiasis

**Contraindications:** chronic malabsorption; cholestasis; cholelithiasis; caution in nephrolithiasis

Can impair absorption of many medications



# Liraglutide 3 mg (Saxenda)



Week 1	Week 2	Week 3	Week 4	Week 5 Full Dose
0.6 mg	1.2 mg	1.8 mg	2.4 mg	3.0 mg

## Mechanism of action: GLP1 agonist

- CNS mediated satiety, decreases gastric motility

**Dose:** 3 mg SC daily (titrated up over 4 weeks)

Avg weight loss 5.4%

**SE:** Nausea, constipation/Diarrhea, dyspepsia

**Contraindications:** pancreatitis, medullary thyroid cancer (MCT), multiple endocrine neoplasia syndrome type 2 (MEN2)

# Bupropion/Naltrexone (Contrave)

## Mechanism of Action:








- Bupropion: dopamine and norepinephrine reuptake inhibitor
- Naltrexone: opioid receptor antagonist

**Dose:** 90mg/8mg tab; 2 tabs PO BID

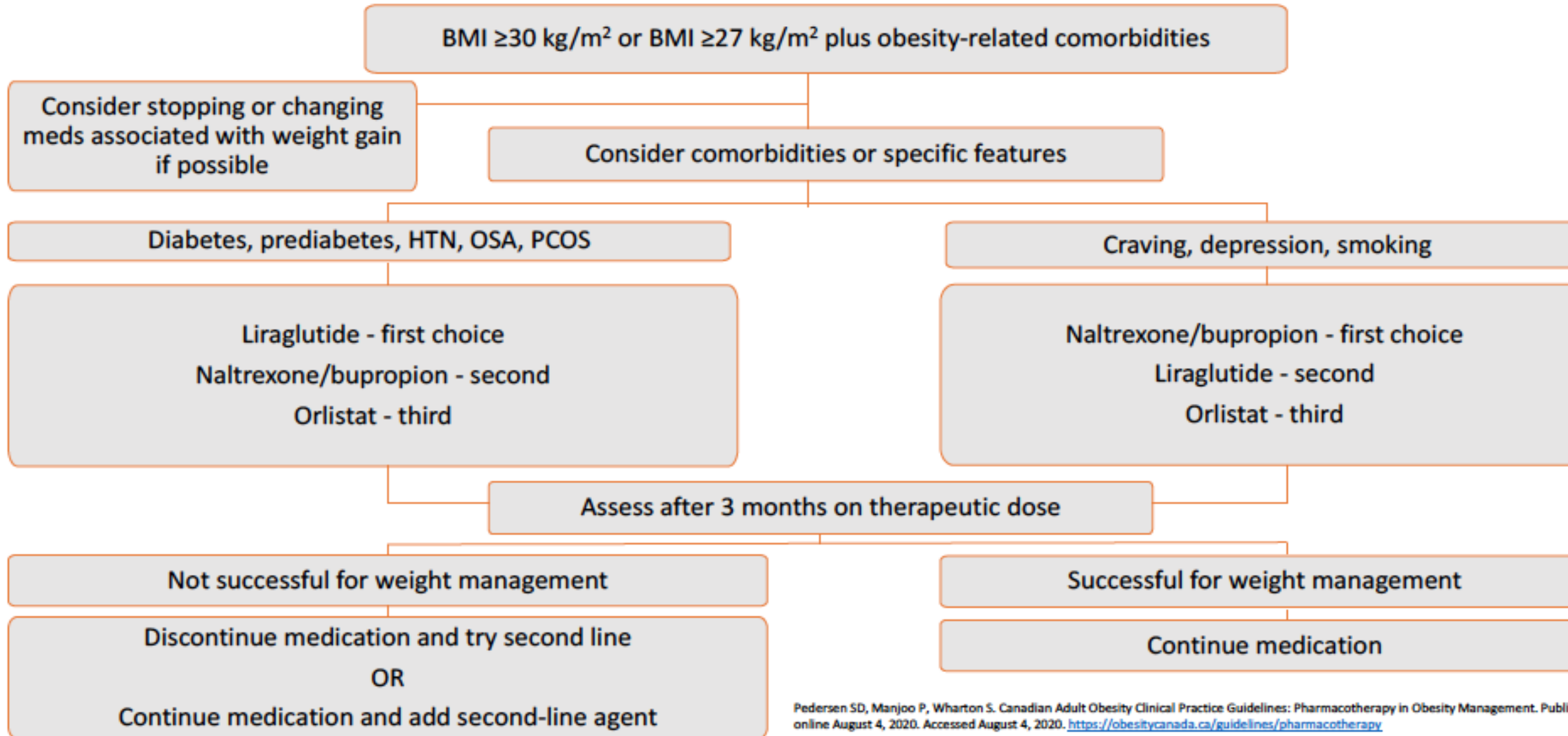
Average weight loss ~ 4.8%

**SE:** nausea, constipation, headaches, difficulty sleeping

**Contraindications:** chronic opioid use, hx of or risk of seizure, MAOI use

	Week 1	Week 2	Week 3	Week 4 and Beyond
AM Tip: Take with breakfast	 1 pill in AM	 1 pill in AM	 2 pills in AM	 2 pills in AM
PM Tip: Take before dinner		 1 pill in PM	 1 pill in PM	 2 pills in PM

# Obesity Pharmacotherapy



# Pharmacotherapy for Obesity in Canada

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# How do I Know when to Start Medications?

Are they eating generally well most of the time?

Do they have difficulty with hunger/fullness cues?

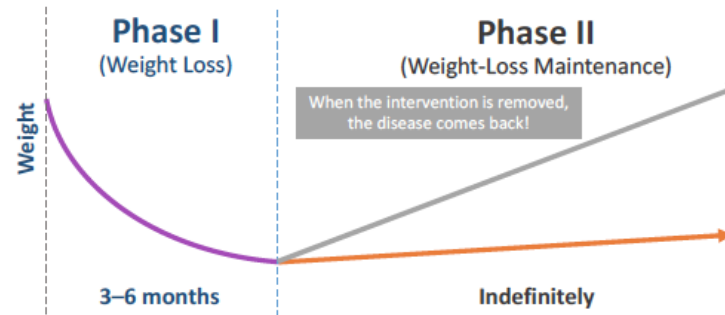
Have they weight cycled many times? Do they have a family history of higher weight?

Are they at or at risk for a higher EOSS stage?

Do they have coverage?

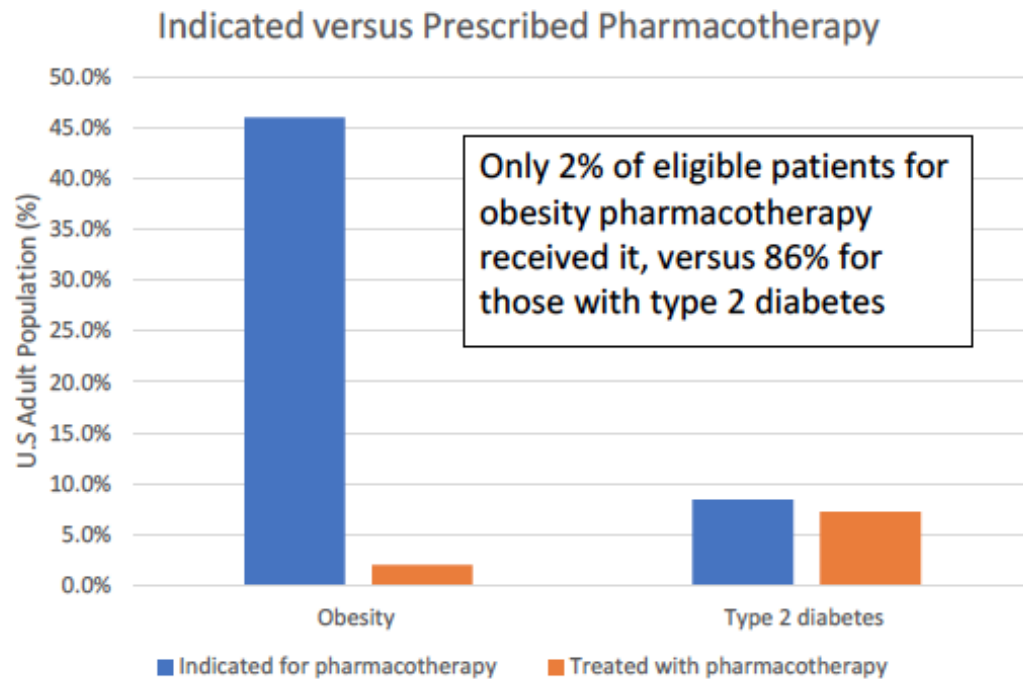
# How Long Should Pharmacotherapy be Continued for?

- Obesity is a chronic disease just like type 2 diabetes!
  - **Pharmacotherapy is intended to be part of a long-term treatment strategy**
- If  $\geq 5\%$  weight loss not achieved after 3 months on full/maximum tolerated dose then the medication needs to be reassessed.



Pedersen SD, Manjoo P, Wharton S. Canadian Adult Obesity Clinical Practice Guidelines: Pharmacotherapy in Obesity Management. Published online August 4, 2020. Accessed August 4, 2020. <https://obesitycanada.ca/guidelines/pharmacotherapy>

# Pharmacotherapy is Still Not Commonly Prescribed



- No options are currently covered by OHIP
- 20-30% of private drug plans cover these medications
- Cost is prohibitive for effective therapies
- Advocate for your patients!  
<https://obesitycanada.ca/public-resources/tools-accessing-health-benefits/>

Thomas CE, Mauer EA, Shukla AP, Rathi S, Aronne LJ. Low Adoption of Weight Loss Medications: A Comparison of Prescribing Patterns of Antiobesity Pharmacotherapies and SGLT2s. *Obesity (Silver Spring)*. 2016;24(9):1955-1961. doi:10.1002/oby.21533



# What if Medications are Not Covered for my Patient?

- Consider the 2 other pillars of treatment!
  - Behaviour modification is not well understood and poorly used in clinical practice
  - Understand the needs of the patients and match treatment to those needs
    - Example – PT for knee pain, stress coping strategies, improving sleep behaviours

# Key Points About Pharmacotherapy



The effect is variable, some people lose more, some people lose less



5% of body weight loss in first 3 months of medication (at full dose/mox tolerated dose)\*\*



GUIDELINES for starting: BMI>30 or BMI>27 with a medical issue related to weight



Support programs:

Saxendacare

Contrave support program



Long term strategy

## References

1. Pedersen SD, Manjoo P, Wharton S. Canadian Adult Obesity Clinical Practice Guidelines: Pharmacotherapy in Obesity Management. Published online August 4, 2020. Accessed August 4, 2020. <https://obesitycanada.ca/guidelines/pharmacotherapy>
2. Thomas CE, Mauer EA, Shukla AP, Rathi S, Aronne LJ. Low Adoption of Weight Loss Medications: A Comparison of Prescribing Patterns of Antiobesity Pharmacotherapies and SGLT2s. *Obesity (Silver Spring)*. 2016;24(9):1955-1961. doi:10.1002/oby.21533
3. Wharton, Sean, David C W Lau, Michael Vallis RPsych, Arya M Sharma, Laurent Biertho, Denise Campbell-Scherer, Kristi Adamo, et al. "Obesity in Adults: A Clinical Practice Guideline." *Canadian Medical Association Journal* 192, no. 31 (2020): 17.
4. Kushner RF, Calanna S, Davies M, Dicker D, Garvey WT, Goldman B, Lingvay I, Thomsen M, Wadden TA, Wharton S, Wilding JPH, Rubino D. Semaglutide 2.4 mg for the Treatment of Obesity: Key Elements of the STEP Trials 1 to 5. *Obesity (Silver Spring)*. 2020 Jun;28(6):1050-1061. doi: 10.1002/oby.22794. PMID: 32441473; PMCID: PMC7318657.